



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,689	11/28/2005	Peter Farkas Binderup Hansen	G0365.0377	9582
32173	7590	07/12/2010		
DICKSTEIN SHAPIRO LLP			EXAMINER	
1633 Broadway			HOFFMANN, JOHN M	
NEW YORK, NY 10019				
			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			07/12/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/533,689

**Applicant(s)**

HANSEN ET AL.

**Examiner**

John Hoffmann

**Art Unit**

1791

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 6, 7, 9-13, 15, 17-19, 22 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9-13, 15, 17-19, 22 and 24-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/11/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Rejections - 35 USC § 103***

Claims 1-3, 6-7, 9-13, 15, 18-19, 22 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen 5614449 in view of Perander 6599388, Nakahara 6022514 and Juul 2003/0083137.

As discussed previously Jensen discloses most of the invention, but not the use of sewage sludge ash.

Perander teaches to make briquettes for mineral wool production (starting at col. 5, line 58) and use materials based on the chemical composition of the fibers. Juul teaches using sewage sludge ash to make fibers. Thus it would have been obvious to use a sewage sludge ash in the Jensen briquette, depending upon it's cost, chemical make up, what the desired chemical make-up of the fiber is, or the need to dispose of the ash.

Selection of a known suitable ingredient is generally not invention.

**MPEP 2144.07 Art Recognized Suitability for an Intended Purpose**

The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) (Claims to a printing ink comprising a solvent having the vapor pressure characteristics of butyl carbitol so that the ink would not dry at room temperature but would dry quickly upon heating were held invalid over a reference teaching a printing ink made with a different solvent that was nonvolatile at room temperature but highly volatile when heated in view of an article which taught the desired boiling point and vapor pressure characteristics of a solvent for printing inks and a catalog teaching the boiling point and vapor pressure characteristics of butyl carbitol. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301.).

See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious); *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 8 USPQ2d 1323 (Fed. Cir. 1988) (Claimed agricultural bagging machine, which differed from a prior art machine only in that the brake means were hydraulically operated rather than mechanically operated, was held to be obvious over the prior art machine in view of references which disclosed hydraulic brakes for performing the same function, albeit in a different environment.).

As to the up to 15% ash limitation of claim 1, such would have been obvious depending upon the amount of ash available, the composition of ash, and the desired composition of the fibers.

Nakahara (at col 1, lines 11-40) discloses two "typical" sludge ashes from sewage treatment plants (i.e. sewage sludge ashes). Both of these typical ashes have iron (III) oxide in the range of 8-20% as claimed. Thus it would have been obvious to use an ash with an iron (III) oxide content consistent with the claimed 8-20% range, based upon what is available, and since such a content is typical.

Claims 2-3: the 13 wt % shown in Nakahara converts to 5.7 wt% phosphorous. Thus it would have been obvious to use such a 'typical' waste product, if it is the most economical to use, or if it is the only material that needs to be disposed of. Again, it is generally not invention to use a known suitable ingredient.

Claims 6-7, 9 and 24: As indicated above, it would have been obvious to use any suitable amount of the rock material (ash) depending upon the amount of ash available, the composition of ash, and the desired composition of the fibers.

Claim 10: see for example col. 6, lines 63-65 of Jensen.

Claim 11: Juul at [0026] teaches one can store the briquettes. It would have been obvious to store the briquettes for two days or longer, and use as needed, or when required by a factory shut-down.

Claims 12-13 and 18: see Jensen, for example col. 2, lines 40-50.

Claim 27 is clearly met.

Claims 15, 25 and 26 and 28: It would have been obvious to keep as much of the phosphorous in the final product as reasonably possible. It is a matter of common sense not to waste raw materials. ON page 6 of the 12/11/2009 Office action, Examiner took Official notice that it is well known to perform quality control measure to make sure that a final product corresponds to the intended product – to ensure the process creates what was intended. Applicant has not traversed the Official notice, and in accordance with it is now considered admitted prior art.

**From MPEP 2144.03**

If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding With Adequate Evidence

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b). See also Chevenard, 139 F.2d at 713, 60 USPQ at 241 ("[I]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697 ("[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2).

If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate.

Thus it would also have been obvious to check the glass composition to see if the desired glass composition is being created. And if the amount of final phosphorous (or any ingredient) was less than what was put into the process, it would have been obvious to take measures to eliminate the loss. It is presumed that applicant did not invent any special new process to reduce P loss - since nothing special is disclosed.

Claim 19 is clearly met.

Claim 22: such are intended use limitations: The Jensen fibrous product can be used as any of the uses claimed.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen 5614449 in view of Perander 6599388 and Perander 6599388, Nakahara 6022514 and Juul 2003/0083137 as applied to claim 1 above, and further in view of Sims 5496392.

It is well known that some waste products yield metals when melted (e.g. see Sims, col. 7, lines 38-47). It would have been obvious to separate any iron that is generated by the process. IT would have been obvious to use waste materials which have a large iron content, depending upon what is most economically available. It is not invention to separate non-utilizable by-products of processes. In other words it would have been obvious to remove/tap any iron because it is clear that the intended fiber materials should not have any metallic iron in it.

***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

As per applicant's request the references at issue have been considered - see attached forms.

It is argued that Jensen does not disclose any non-virgin rock material. This is clearly incorrect: see Jensen col. 6, line 65 for example. The previous rejection referred to "the non-virgin rock material" of claim 1, not "any" non-virgin rock material.

The arguments regarding briquettes being held together with cement and powder in the furnace and the strength of briquettes at 2-3 days vs 4 weeks have been considered. Examiner fails to see how such relates to the claims which do not require any cement or particular strength or preclude the creation of powder.

It is further argued that it was found that briquettes containing 5% SSA unexpectedly had a greater compressive strength. It is also argued that briquettes containing "the specific sludge ash at a concentration of 15% or less" increased the compressive strength is surprising, unexpected and unpredictable. The arguments point to a Declaration by Peter Farkas Binderup Hansen as evidence to support these points.

Examiner first notes that the declaration makes no mention of the 15% (or "15% or less") SSA value. Since Hansen makes no mention of the 15% value, Examiner does not understand how the declaration can be considered evidence that the 15%



value is relevant. On the contrary, the report that Hansen refers to uses a 13.7 wt% SSA (in material 6, page 3 of the report) - and this yields strengths of 2.2 and 4.0 MPa at 2 days and 5 days respectively. These strength values are only half of ash-less Material 1, which had corresponding strengths of 4.4 and 9.7 MPa. Since 13.7% ash resulted in sub-standard results, it seems unreasonable to conclude that claim 1 range of "up to 15%" has a new and unexpected result.

As to the 5% ash yielding unexpected results: This appears to be merely a conclusion by Hansen. As Pointed out in the MPEP at 716.02 "Any differences between the claimed invention and the prior art may be expected to result in some differences in properties. The issue is whether the properties differ to such an extent that the difference is really unexpected. In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner notes page 3 of the report in the Hansen Declaration shows mixture 2 which has 5% sewage sludge ash had a strength of 4.6 MPa, as compared to 4.4 MPa of ash-less mixture 1. It seems to examiner that a 5 % improvement in strength (i.e. from 4.4 to 4.6MPa) is a rather minor improvement, especially when compared to the strength a few days later at 9.7 MPa (a 120% improvement). It does not seem reasonable to conclude that a mere 5% improvement is truly unexpected *to one of ordinary skill in the art*. The Declaration offers no explanation as to the why one would consider the improvement to be unexpected.

Examiner does not question that Declarant Hansen found the results unexpected. However whether an inventor finds something unexpected is not sufficient grounds for nonobviousness. Rather one must consider whether the results are new

and unexpected to one of ordinary skill in the art. Hansen does not offer an opinion as to whether the results would also be unexpected to one of ordinary skill. Nor has Hansen attempted to establish that he is of ordinary skill. Examiner notes many inventions are patented by people not considered of ordinary skill in the field of invention.

There is no showing that the evidence of record offered for comparison demonstrates results that are commensurate in scope with the claims. In this regards, none of the claims are limited to the invention of page 3 of the report which require the use of 14% GeoBrick B and 81% Neuburg Plant material . Applicants have not met their burden of explaining how the results reported in the declaration and report can be extrapolated from the limited instances presented so as to be guaranteed as attainable through practicing the invention as broadly claimed. It is well established that the evidence relied on to establish unobviousness must be commensurate in scope with the claimed subject matter. See *In re Kerkhoven*, 626 F.2d. 846, 851, 205 USPQ 1069, 1072-1073 (CCPA 1980) and *IN re Clemens*, 622 F.2d 1029, 1035, 206 USPQ 289, 296 (CCPA 1980).

Since applicant has not established that the invention as broadly claimed would provide results that would be considered new and unexpected to one of ordinary skill in the art.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Thursday, roughly 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann  
Primary Examiner  
Art Unit 1791

/John Hoffmann/  
Primary Examiner, Art Unit 1791